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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,594	11/19/2003	Paul Meller	5552.1437-01	8652

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EXAMINER	
ROSENBERGER, RICHARD A	

ART UNIT	PAPER NUMBER
2877	

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/717,594	MELLER, PAUL.	
	Examiner	Art Unit	
	Richard A Rosenberger	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/428,496.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The following is a quotation of the first and second paragraphs of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
>
> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16-18, 20, 24 are rejected under 35 U.S.C. 112, first and second paragraph, as not being supported by the specification as filed and/or as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 calls for "a detector mounted on the diaphragm", which is shown in figure 2. Claims 16-18, dependent form claim 13, claim that there is a "beam guidance or deflection unit", which appears to be directed generally to the arrangement of instant figures 3d and 3e, with "deflection arrangement 25". These are separate embodiments, there is no disclosure for the detector to be mounted on the diaphragm in the embodiments in which there is a "deflector unit".

There appears to be no disclosure to support the subject matter of claims 17 and 18 in which a "beam guidance of deflection unit" is mounted on a mounting region of a mirror (claim 17) or an a lens (claim 18). The only disclosure appears to be to mount the "deflection unit" on the diaphragm in conjunction with figures 3d and 3e.

Here appears to be no adequate disclosure as to measuring the scattered and transmitted light "temporally both separately and simultaneously". Measuring the two simultaneously appears disclosed, both temporally separately and simultaneously appears not to be adequately disclosed. Originally filed claim 7 mentions this feature, but that mere mention is not sufficient to teach those in the art how to make and use this "both temporally separately and simultaneously" detection.

Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 21, there is no claimed connection between the light source of this claim and the steps of claim 13 upon which claim 21 depends.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 13-15,19, 20, 23, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheung (US 5,298,968).

Cheung et al, in particular shows, in figure 5, (see also figure 13) scattered and transmitted light from a sample being passed through a first lens system (60), with scattered light passing around a diaphragm (50, attached to lens 62, see figure 10). The transmitted light is detected by a detector (36') mounted on the diaphragm; the reference teaches that the detector (36') can be "directly within" an aperture in the diaphragm (column 8, lines 47-49 and column 11, lines 22-23), which at least clearly suggests mounting the detector "on" the diaphragm. The scattered light is passed through a second lens system (62) and the intensity of the scattered light measured, by a detector (36), separately from the transmitted light.

The diaphragm of Cheung et al has some shape, and is thus "a shaped" diaphragm. The central area of the diaphragm is a region for mounting a detector. Using wavelength filters of the like as appropriate for the measurement at hand would have been obvious. The sample cell 20 of Cheung can be a cuvette, and the system can be used in any type of broader test in which it is useful to measure scattered light.

Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheung (US 5298968) as applied to claim13 above, and further in view of Goulas et al (US 4,348,111).

It is known in the art that the transmitted light can be separated form the scattered light using a beam deflector such as a mirror to deflect the light to a detector; see beam deflector 25 of Goulas et al . It would have been obvious to us this known technique in a system such as shown by Cheung because it is a known alternative manner of doing which is being done in Cheung. Mounting the beam deflector in any convenient manner would have been obvious.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cheung et al (US 5,298,968) as applied to claim13 above, and further in view of Tucker (US 3,786,261).

Tucker shows, in an arrangement that separately measured scattered and transmitted light, suing the transmitted light to adjust the intensity of the light source. It would have been obvious to use this known technique in the system of Cheung et al, which also separately detects the transmitted and scattered light.

Claims 22, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheung et al (US 5,298,968) as applied to claim 13 above, and further in view of Minekane et al (US 4,549,809) It is known in the art to use light transmitted through a moving cuvette to determine the position of the cuvette as it passes through the light beam to determine the proper position to make a measurement; this is shown by Minekane et al. Using this known technique with a

measurement system that includes scattered light measurements, as in Cheung would have been obvious because it is a known manner of helping to ensure accurate measurements.

Claims 29-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheung (US 5,298,968), in view of Rodriguez (US 3,804,535) and Lowy et al (US 3,787,124).

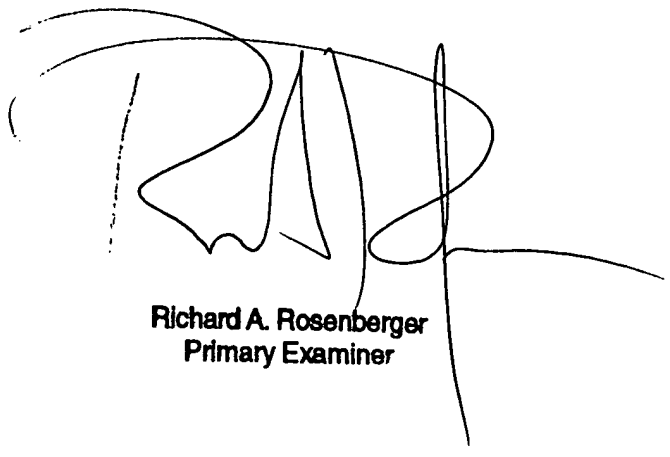
It is known to separately measure the light transmitted by a sample, and scattered by that sample; this is shown by the Cheung (see above). It is known to use an empty vessel as a calibration standard in calibrating an optical measuring apparatus, this is shown by Rodriguez (column 4, lines 1-6) and Lowy et al (column 8, lines 21-27). This known use of an empty cuvette to calibrate would have been obvious with any type of optical system, including those measuring scattered light; those in the art would have recognized that such instruments should be calibrated for accurate measurements to be obtained.

Meltz et al (US 4,482,247) shows that is known to mount a detector (30) to detect transmitted light on a diaphragm in a light scattering measurement system. Blesener et al (US 5,262,841) shows mounting an optical component on a lens.

Papers related to this application may be submitted to Group 2800 by facsimile transmission. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The fax number is (703) 872-9306

Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. A. Rosenberger whose telephone number is (571) 272-2428.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.



R. A. Rosenberger
12 March 2004

Richard A. Rosenberger
Primary Examiner